

| 1 | <i>X</i> . | A mask with sensors for monitoring a patient during gas delivery comprising: |
|---|------------|---|
| 2 | | a mask having a perimeter for contacting the face of a patient, |
| 3 | | at least one sensor on the mask to sense at least one parameter indicating a state of |
| 4 | the pat | tient, |
| 5 | | leads in the mask connected to the at least one sensor for transmission of data, |
| 6 | | a means for transmitting data from the mask, |
| 7 | | a hose connector on the mask for attachment of a hose for delivery of gas to the |
| 8 | mask. | |
| 1 | | Λ |
| 1 | 2. | A mask with sensors for monitoring a patient during gas delivery as in claim 1 |
| 2 | where | in, |
| 3 | | the means for transmitting data from the mask comprises a mask interface |
| 4 | connec | ctor for connecting the leads in the mask to a cable. |
| 1 | | |
| 1 | 3. | A mask with sensors for monitoring a patient during gas delivery as in claim 1 |
| 2 | compr | ising, |
| 3 | | a means for providing power to the mask to operate the sensors. |
| 1 | | |
| 1 | 4. | A mask with sensors for monitoring a patient during gas delivery as in claim 3 |
| 2 | where | in,/ |

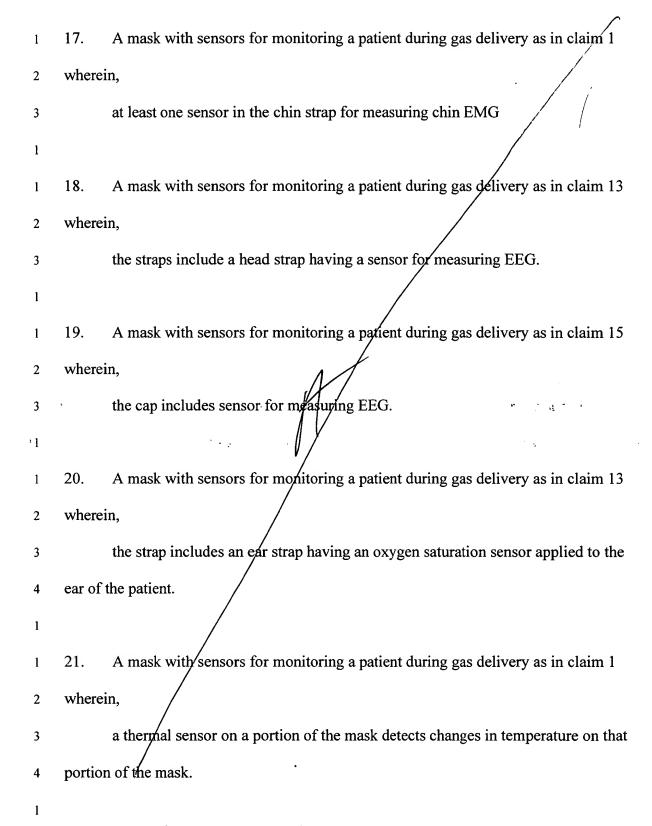
wherein,

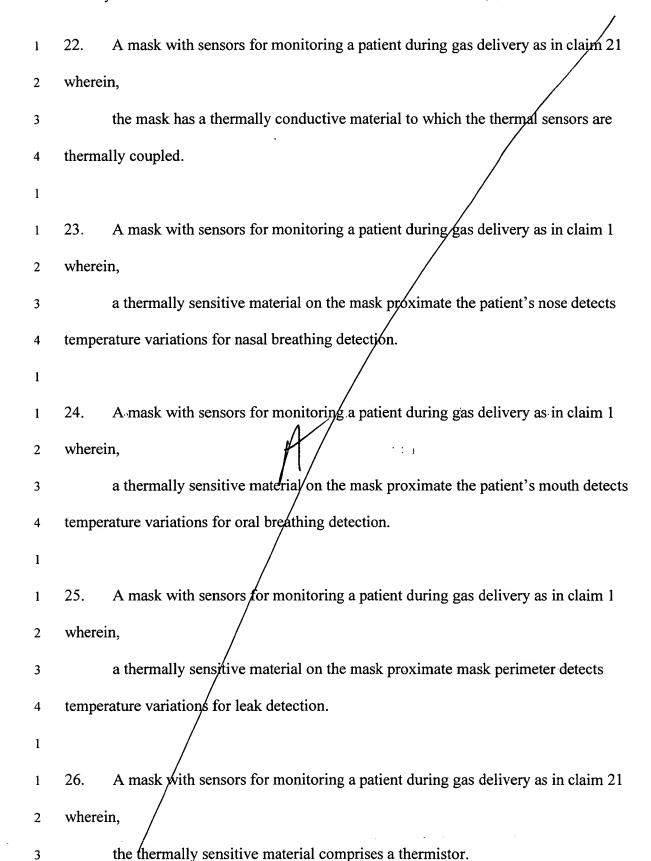
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the means for providing power to the mask to operate the sensors comprises a 3 mask interface connector connecting a power source lead to a lead in the mask for 4 transmitting power to a sensor and; 5 the means for transmitting data from the mask comprises a mask interface 6 connector for connecting the leads in the mask to a cable. 7 1 A mask with sensors for monitoring a patient during gas delivery as in claim 3 5. 1 wherein, 2 the means for providing power to the mask to operate the sensors comprises a 3 battery attached to the lead in the mask for transmitting power to a sensor and; 4 the means for transmitting data from the mask comprises a telemetry device. å 5 1 A mask with sensors for monitoring a patient during gas delivery as in claim 1 1 wherein, 2 the sensors on the mask are selected from the group consisting of, EEG, EMG, 3 EOG, ECG, PTT, temperature, surface blood pressure, pulse, blood oxygen level, light, 4 breathing rate, breathing/volume, gas flow, nasal air flow, oral air flow, position, activity 5 sensors, mask leakage, mask pressure, eye movement, microphones, gas pressure, patient 6 recycled air detection, patient back gas and movement. 7 1 A mask with sensors for monitoring a patient during gas delivery as in claim 1 1

| 3 | | at least one sensor on the perimeter of the mask makes contact with the skin of the |
|---|-----------------------------|---|
| 4 | patient | for measuring a parameter. |
| 1 | | |
| 1 | 8. | A mask with sensors for monitoring a patient during gas delivery as in claim 7 |
| 2 | wherei | n, |
| 3 | | the perimeter of the mask has a soft pliable material for contacting the face of the |
| 4 | patient | |
| 1 | | |
| 1 | 9. | A mask with sensors for monitoring a patient during gas delivery as in claim 8 |
| 2 | wherei | n, |
| 3 | | the material has at least one recess with a sensor in the recesses for contacting the |
| 4 | skin of | the patient. |
| 1 | | |
| 1 | 10. | A mask with sensors for monitoring a patient during gas delivery as in claim 9 |
| 2 | wherei | n, |
| 3 | | leads in the pliable material are connected to the at least one sensor for power and |
| 4 | data connections therewith. | |
| 1 | | |
| 1 | 11. | A mask with sensors for monitoring a patient during gas delivery as in claim 8 |
| 2 | wherei | n, |
| 3 | | a carbon embedded rubber material provides electrical contact between the sensor |
| 4 | in the | soft pliable material and the patient's skin. |
| | | |

A mask with sensors for monitoring a patient during gas delivery as in claim 1 12. 1 2 wherein, the mask has at least one strap attached to the mask to hold the mask in place. 3 1 A mask with sensors for monitoring a patient during gas delivery as in claim 1 13. 1 2 wherein, the mask has at least one strap attached to the mask to hold the mask in place and 3 the strap has at least one sensor wired to the mask for monitoring the patient. 4 1 A mask with sensors for monitoring a patient during gas delivery as in claim 1 14. wherein, the mask has a cap attached to the mask to hold the mask in place. 3 1 1 A mask with sensors for monitoring a patient during gas delivery as in claim 1 1 15. wherein, 2 the mask has a cap with at least one sensor attached to the cap, the sensor leads on 3 the cap connected to the leads in the mask for monitoring the patient. 4 1 16. A mask with sensors for monitoring a patient during gas delivery as in claim 13 1 2 wherein, the strap includes a chin strap. 3







- A mask with sensors for monitoring a patient during gas delivery as in claim 21 27. 1 2 wherein,
- the thermally sensitive material comprises a thermocouple. 3
- A mask with sensors for monitoring a patient during gas delivery as in claim 21 28. 1
- 2 wherein,

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- the thermally sensitive material comprises a coating on the mask. 3
- A mask with sensors for monitoring a patient/during gas delivery as in claim 21 29. 1
- 2 wherein,
- the thermally sensitive material portion of the mask comprises an internal surface. 3
- portion of the mask. 4
- A mask with sensors for monitoring a patient during gas delivery as in claim 21 30. 1
- wherein, 2
- the thermally sensitive material portion of the mask comprises an external surface 3
- portion of the mask. 4
- A mask with sensors for monitoring a patient during gas delivery as in claim 21 31. 1
- wherein, 2
- the thermally sensitive material portion of the mask comprises a portion within 3
- the mask material.

